



# A Proposed Methodology for Empirical Research Concerning Issues of Professional Stress among Teachers: The Case of Greece

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## Abstract

This paper presents the proposed methodology for an empirical research that relates the professional stress of secondary education teachers to the factor of school performance, as well as practical procedures for recording this phenomenon. The applicability of qualitative research as the proper relevant methodology is documented. The sampling, tools and reliability criteria of the proposed survey are also specified. Although this survey has been designed focusing on the stress factors that affect the teachers of secondary education in Greece, the authors believe that the proposed methodology can be generally applicable for conducting relevant surveys.

**Keywords:** professional stress, secondary education teachers, stressors, school performance

## 1. Introduction

Teachers experience high levels of professional stress, usually higher than other professional groups (Jesus & Conboy, 2001; Kyriacou, 2001), due to the interaction of many different factors: organizational, bureaucratic, educational changes, procedural issues, communication and co-operation with colleagues, relationships between teachers, pupils and their parents (Spyromitros & Iordanidis, 2017). These factors, combined, create negative feelings to teachers regarding their profession. For describing the phenomenon of professional stress of teachers in Greece, including the related factors, just a limited number of surveys have been conducted in the recent past (Foulidi et al., 2017; Leventis et al., 2017). In their conclusions, although it is noted that among the main factors of teachers' professional stress is school performance, especially in the case of the last grade of Senior High-School (Katsioulas & Hatzipanagiotou, 2014), mainly due to the national admission examinations to tertiary education, neither the conditions are investigated nor whether there are any practices applied to limit this phenomenon. In addition, in terms of methodology, only quantitative surveys have been conducted so far, although it has been suggested that in such a primary research, the qualitative method is considered more appropriate for the purposes of the phenomenon under investigation (Kvale, 1996, p. 67).

Consequently, the purpose of such a proposed research would be to identify, analyze and interpret the correlation between the performance of pupils of secondary education and the professional stress of their teachers, as well as to interpret the experiences and beliefs of the participants in dealing with this research problem in times of crisis, in order to reveal modern aspects and parameters, which have not been identified yet. It should be noted here that there are no monitoring practices followed in Greece, unlike other countries like UK (Antoniou, 2006), concerning the professional stress of educators and their relevant support practices (Leventis et al., 2017). Thus, conducting a survey like the proposed one herein, which addresses the issues of professional stress of teachers regarding school performance by using a qualitative methodology, is a prerequisite for offering any supportive services and activities. Yet, the absence of a standard methodology for conducting such a qualitative survey makes the design of a relevant method imperative. This design is the purpose of the present study.

## 2. Method

In such a primary research, the qualitative method is suggested to be used. It is considered more appropriate for the purposes of the phenomenon under investigation (Kvale, 1996, p. 67), focusing on "how" and "why" (Iosifidis, 2003). Besides, the qualitative method is considered naturalistic and authentic, since it is applied in real conditions

and focuses on what happens, without trying to control it (Isari & Pourkos, 2015). By discovering the personality of the subjects, it seeks to reveal their experiences (Papageorgiou, 1998, p. 9-10). It urges to reflect attitudes, perceptions and behavioral data, aiming at understanding the complexity of teacher work-stress. It focuses on the limited area of professional educational stress, by exploring it thoroughly and by addressing the data holistically, in order to achieve an all-round and in-depth understanding of the phenomenon under investigation and to interpret its overall image. It should be additionally selected because its remarkable advantage is its versatility. It is considered to be dynamic, flexible and circular, since in the specific research process, the questions may emerge during the process in order to achieve the expected results. Another remarkable advantage of it is the low cost.

In addition, the qualitative research method can be chosen because it is inductive; the detailed observations of the researcher will determine the categories, which will show the logical relations in the recording of the results. Through direct communication with subjects in their natural space (Glasser & Strauss, 1967; Papaioannou et al., 1996), the initial (abstract) research questions related to school performance and stress are approached. But then, this research aims to be released from any predetermined formula, limiting the range of hypotheses and their theoretical scope, as well as succeeding in producing new theories or confirming the existing phenomenon in relation to the investigation. Finally, qualitative research is considered more appropriate in this research because it is more favorable in interdisciplinary theoretical approaches, which study the educational reality. It focuses on the importance of a variety of factors that are traditionally considered by different sciences (Banister et al., 1994) and coexist in the issue under consideration. So, the details of the proposed method are presented below.

## *2.1 Data Collection*

The location of the research can be the secondary education schools of a certain area, as well as the premises of the local public Educational Directorate itself. Data collection should take place after and/or during school operation hours. Specifically, a set of activities should be implemented, including semi-structured interviews, observation in workplace, calendar and field-notes keeping (see next 2.1.1-4).

### *2.1.1 Semi-Structured Interviews*

In the first phase of the survey, four (4) interviews, based on semi-structured questions, should be held face-to-face on a selected sample. The method is appropriate for the collection of primary data, as the data are collected through personal contact by the same researcher and surely consider the part of the population aimed to be studied. Flexibility is achieved (Kyriazi, 2001), since the researcher has the possibility to modify the exploratory direction of enrichment of research intentions, following up on interesting responses and exploring the motivations of subjects, which cannot be accomplished by other qualitative research techniques, such as the questionnaire. That is, a flexible semi-structured discussion guide will be used (see subsection 3.1). The researcher will be able to add appropriate clarifying questions to extract additional information that has not been determined in advance, but will result from the responses of the subjects, thus achieving clarity and the breadth of the data. Questions will be formulated quickly and appropriately to smoothly guide the subjects to a greater depth. At the same time, issues emerging during the discussion will be elucidated (Hitchcock & Hughes, 1989) to facilitate interaction and deepening directly to what is expressed by the subjects of the survey.

### *2.1.2 Observation*

Two descriptive remarks should be made during a four-month pedagogical meeting of the Teachers' Association. The first will be at a General Senior High-School and the second at a Vocational High-School of the same local Educational Directorate. The aim would be to provide a more complete and accurate description of the causes of teachers' stress, during the delivery of the second semester's marks and to record effective ways of limiting it. There will be a focus on individual details related to the subject under consideration, which are part of certain predetermined categories of non-experimental type. The main advantage of this method is its immediacy. During the observation to record the findings, techniques such as the notes and entries in the observation protocol (see subsection 3.2) will be used. There could be videotaping or video recording (Croll, 1986; Cohen & Manion, 1997; Altrichter et al., 2001; Kyriazi, 2001), if there is enough time to obtain the related permits.

### *2.1.3 Keeping a Calendar*

This is a complementary method to the above one. Short notes will be recorded on predefined categories of the observation-data capture plan after the completion of each educational research method. These are either reflection and introspection notes or extensive, disorganized references from the semi-structured interviews and observation (Altrichter et al., 2001), which are considered to be remarkable sources of primary data (Foulidi, 2015).

#### 2.1.4 Keeping Field Notes

Field notes are additional, complementary and important data, which help to record everything that happens during interviews and observations. These field notes become particularly important because observations are not always recorded in the same text with the data.

#### 2.2 Sampling Procedures

The participants in the survey could be a small number of teachers, who serve at the time of the survey at a local Directorate of Secondary Education, depending on the availability of participants and researchers. The choice of participants should be intentional and targeted. Stratified sampling should be applied (Pappas, 2002; Papageorgiou, 2015). Sub-populations should be classified into the following groups, based on certain characteristics of the strata. The layers of this research are:

- Type of school (General Senior High-School, Vocational High-School).
- Sex (Male, Female).
- Task/Duties (Teacher, Deputy Director or Director).

Then a full list of the names of the teachers serving in the Directorate per layer can be provided by the local schools administrator. The sample should be selected by random sampling from each group and the sample size from one layer. This sampling is appropriate because the sample will provide a sufficient number of subjects from sub-populations, i.e., teachers serving both to General and Vocational Secondary Education of the same local Directorate of Secondary Education, both men and women. Sub-populations will also include teachers who actively teach, along with teachers who serve in positions of administration (directors, deputy directors). The main advantage of this method is that all the subcategories are represented based on the selected attributes. The sample of this survey may include teachers of different age groups, educational attainment, social and family status and formal qualifications.

#### 2.3 The Data Collection Tool

For this survey, an “interview guide” has been developed (see subsection 3.1). This is initially a short introductory note, which introduces the survey subjects to the main topic of the interview and briefly lists the main rules of ethics. Then, the questions are divided into two sections: The first one includes the causes of this phenomenon and the second one the ways to deal with it. At the end, there are final comments and thanks. The order of the questions ensures a smooth and logical transition from one issue to another, so as not to confuse the subjects of the survey (Rubin & Rubin, 1995, p. 123). In particular, opinion and structural questions should be used. Content validity can be achieved, since the measurement tool fully and equally covers all aspects of the phenomenon under consideration.

#### 2.4 Preparatory Activities

Before the conducting of interviews, practical issues should be settled. There should be telephone communication with the subjects of the survey, regarding the date and time of their conduct, which would be convenient for them and should be precisely defined. The informed consent form should be prepared and used, which should be read by the researcher and signed by the subjects of the survey, prior to its commencement.

#### 2.5 Reliability and Validity Issues

The “credibility” in this qualitative research can be ensured in relation to the methodological design, but also to the quality of the data that will be proved to be true and worthwhile findings. In particular, they should be applied:

- “Triangulation” of methods and data (Denzin & Lincoln, 1994, p. 511; Vitsilaki-Soroniati, 1998). Interview data are triangulated with the observations data. Thus, each data source contributes to the final analysis of the data in such a way that each conclusion of the research results from the confirmation of at least one other data source. This form of triangulation lends credibility to the findings of research and ensures the adequacy and relevance of the interpretations, resulting from the findings.
- Adherence to the credibility criterion of prolonged engagement with the research field. The researcher carrying out this research should have a lot of educational experience, having devoted enough time to the field under investigation and having a long lasting collaboration with the teachers, who are the sample of the research. In this survey, continuous member checks should be carried out.
- Verification of the data. The primary data, as well as their interpretation after the completion of their collection, are given to the subjects of the survey in order to verify their reliability.
- The detailed examination of remarkable elements of this research by a colleague, experienced in carrying

out educational research. The research methodology, the interview guide and the observation protocol should be tested by an experienced high-qualified teacher, who should not be aware of this research, in order to check its methodology before applying them.

### 2.6 Rules of Ethics

In the proposed study, a collection of personal data will be carried out, so the basic principle of voluntary participation must be respected. That is why the subjects of the survey, before the start of the interview, should be informed that they may not answer. In order to ensure the scientific correctness of the data to be collected and the safeguarding of sensitive personal data, the protection of the dignity of the respondents should be preceded by the necessary telephone communication with the teachers, who will be the sample of the survey. During the course, they will be informed about the subject of the interview and about the ethics to be applied. Neither the field notes nor the interview guide will record the name of the subjects of the survey, except a code number. The data to be gathered will be used for the purposes of this research and not for other purposes.

### 3. Results

The application of the previous methodology is realized through the designing of the following Interview Guide (see subsections 2.3 and 3.1) and Observation Protocol (see 2.1.2 and subsection 3.2), which are the results of the present study. The herein research purpose is described by the main research question:

“Why the pupils’ school performance is a professional stress factor for the Secondary Education teachers, who are teaching in modern times?”

and specialized in the following four sub-questions:

- What are the views of teachers serving in modern times in Secondary Education about parents’ attitudes regarding the performance of their pupils as a source of occupational stress?
- What individual actions are adopted by teachers serving in Secondary Education Schools to reduce their stress level that comes from the performance of their pupils?
- What strategies are implemented by educational administrators who serve in Secondary Education Schools to reduce the stress of their teachers from the performance of their pupils?
- What strategies do the Teachers’ Associations implement in Secondary Education Schools to reduce the stress of teachers that is caused by the performance of their pupils?

#### 3.1 Interview Guide

The researcher should be assured that the ethics of the research will be respected, including the anonymity of participants. Then, the following interview card (Table 1) will be filled in by the answers of each participant.

Table 1. Guide to a semi-structured interview

Code/Serial Number	Interview Date	Interview Location
<i>General features</i>		
Sex	Age	Marital status
Educational level	Years of teaching experience	Position in the school (task/duties)
<i>Based on your personal experience and according to your opinion, describe the most important problems and possible solutions in the following issues, <b>regarding the performance of your pupils:</b></i>		
1) Do you believe that this is a source of professional stress for you and your colleagues?		
2) What individual actions do you take to reduce your stress that comes from it?		
3) What strategies do your school administrators implement to reduce your stress from it?		
4) What strategies do the Teachers’ Associations implement to reduce your stress that comes from it?		
5) Is there something else you would like to add?		

#### 3.2 Observation Protocol

The collection of data to determine the frequency of specific behaviors will be recorded in the Observation Card (Table 2). Each behavior in one of the following four Observation Categories shall be recorded, marking each time the relevant cell.

Table 2. Observation Card

<i>Observation Categories</i>	<i>Observational Behavior Units</i>	<i>What has been said?</i>
1. There has been an association of stress with the performance of pupils.		
2. Documented comments have been made about the performance of pupils.		
3. Suggestions for improving pupils' performance have been made.		
4. During the teaching session of the Teachers' Association, positive and negative points of the proposals were discussed.		

#### 4. Conclusion

The proposed methodology of the herein study aims at providing an appropriate research tool for conducting qualitative research, which will deal with the issue of professional stress of high-school teachers regarding their pupils' school performance. In this respect, sufficient details of the method of implementation have been specified, which include:

- semi-structured interviews, observation, keeping a calendar and field notes, for the data collection part of the process;
- sample definition and sampling procedures;
- development of data collection tools that comprise related cards and questionnaires designed for recording the information provided by the participating high-school teachers;
- definition of preparatory activities, rules of ethics, reliability and validity issues.

Such a research tool not only contributes to the description, analysis and interpretation of the studied phenomenon, but may also conclude to realistic proposals with solutions to immediate practical problems, in order to reduce professional stress and improve the quality of education (Creswell, 2011). The next step of this study will be the application of this research tool to secondary education schools, especially to teachers of the last grade of senior high-schools, for defining the related causes, conditions, feelings and proposals of them, before designing any intervention activities, as suggested by similar research outcomes (Flabouras Nietos et al., 2018). Finally, it is rather obvious that the afore-mentioned methodology can be easily modified for including more research questions, regarding the phenomenon of professional stress of teachers, in general.

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